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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/576,156	<b>Applicant(s)</b> OZAWA, KAZUNORI	
	<b>Examiner</b> PETER CHAU	<b>Art Unit</b> 2419	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 28 January 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-10, 21-26 and 30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10, 21-26 and 30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>4/17/2006</u> .   | 6) <input type="checkbox"/> Other: _____                          |

**DETAILED ACTION**

1. Claims 1-10 and 21-26 and 30 have been examined and are pending.

***Information Disclosure Statement***

2. An initialed and dated copy of Applicant's IDS form 1449 submitted on 4/17/2006, is attached to the Office Action.

***Response to Arguments***

3. Applicant's arguments, see pages 9-13, filed 1/28/2009, with respect to the rejection(s) of claim(s) 1-10 and 21-23 and 25-26 and 30 under 102(b) and 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Salokannel and Harrell and Mor and Kumaki as shown in the rejection below.

***Allowable Subject Matter***

4. The indicated allowability of claim 24 is withdrawn in view of the newly discovered reference(s) to Salokannel and Harrell and Mor and Kumaki. Rejections based on the newly cited reference(s) are shown below.

***Specification***

5. The disclosure is objected to because of the following informalities: As stated in the previous non-final Office Action, the applicant recites a transmission line in a

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wireless environment, for example, paragraph [0001], discloses wireless transmission line. In wireless environments, there are no transmission lines, but a transmission medium or the like. There are numerous errors, for example, paragraph [0001], paragraphs [0061-0062], etc. within the disclosure stating a wireless transmission/reception over a wireless environment using a transmission line.

Appropriate correction is required.

### ***Claim Objections***

6. Claims 6, 7, 8 and 9 are objected to because of the following informalities: each claim cites a first control unit outputting a control signal to transmission path and then later in the claim, it cites a second control unit receives the control signal. It is unclear why would a transmission/reception device transmit a signal and receive the same signal. Examiner will interpret "...the control signal.." in claim 6 line 10, claim 7 line 12, claim 8 line 10 and claim 9 line 12 to be interpreted as "...a control signal..." hereinafter for examination. Appropriate correction is required.

7. Claim 7 is objected to because of the following informalities: the phrase, "...outputting a control signal to path transmission line..." is unclear. Examiner will interpret the phrase as, "...outputting a control signal to said transmission path..." hereinafter for examination. Also, claim 7 of the preliminary amended claims filled on 4/17/2006 discloses "...outputting a control signal to said transmission..." In the newly amended claims filled on 1/28/2009, it appears that the applicant changed "said" to

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“path” and did not indicate a modification of the word “said”. Appropriate correction is required.

8. Claims 21-24 are objected to because of the following informalities: applicant discloses a computer program storage device for claims 21-24, but on line 4 of claim 21, line 4 of claim 22, lines 5-6 of claim 23 and line 5 of claim 24, discloses “said method comprising the steps of”. It is unclear if the claims are a apparatus or a process claim. Examiner will interpret the claims as being an apparatus that contains a computer program that when executed on a computer performs the limitations. Appropriate correction is required.

9. Claim 21 is objected to because of the following informalities: applicant has not indicated by underlying the addition of the phrase, “...said method comprising the steps of...”. Appropriate correction is required.

10. Claim 26 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. In claim 25, it discloses a transmission device and in claim 26, it discloses functions of a reception device. Claim 26 does not further limit the limitations stated in claim 25, it only discloses a reception device and not further limiting the functions of the transmission device.

***Claim Rejections - 35 USC § 112***

11. The following is a quotation of the first paragraph of 35 U.S.C. 112:

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The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

12. Claims 21-24 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Applicant newly added amended claims states, "A computer program storage device..." on line 1 of claims 21-24. The specification only discloses a buffer unit (storage device) used for temporarily storing encoded data (paragraph [0051]). The specification does not disclose a computer program storage device. Examiner will interpret the claim as being an apparatus that contains a computer program that when executed on a computer performs the limitations.

### ***Claim Rejections - 35 USC § 103***

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. Claims 1, 3, 6, 21, 23, 25 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. PGPub 2001/0006552 to Salokannel and in further view of U.S. Patent 7,274,661 to Harrell et al (hereinafter "Harrell").

**As per claim 1, Salokannel teaches a transmission device comprising:**  
**an encoder unit for outputting a stream, obtained by receiving and**  
**encoding a medium signal, to a transmission path** (fig. 2 shows a mobile terminal with an encoder unit 20; paragraph [0027] discloses encoder is used to encode information and then the encoded information is transmitted through a communication channel).

Although Salokannel teaches **encoder unit** (fig. 2 box 20) and **transmission path** (paragraph [0027]) and **outputting a stream** (paragraph [0027]), Salokannel is silent on **a control unit for controlling said encoder unit to change a compression rate thereof and output the stream, when a control signal is received from said transmission path.**

However, Harrell teaches a transmission side receives service adjustments, which may include changes in compression rate, from the receiving side (col. 3 lines 36-53) and the transmission side encodes using a plurality of different coding bit rates based upon a signal from the receiving side (col. 14 lines 4-13).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Salokannel to have a control unit for controlling said encoder unit to change a compression rate thereof and output the stream, when a control signal is received from said transmission path, as suggested by Harrell. This combination would benefit the system by having congestion detection and flow control over packet networks (Harrell col. 1 lines 18-19).

**As per claim 3, Salokannel teaches a reception device comprising:**  
**a decoder unit for decoding a stream received from a transmission path**  
(fig. 2 shows a mobile terminal with an decoder unit 21; paragraph [0027], discloses decoder decodes encoded information received from a communication channel);  
**a buffer unit for storing a medium signal decoded and produced by said decoder unit** (paragraph [0031], discloses the decoded information is stored in the receiving buffer in the memory 13).

Although Salokannel teaches **buffer unit** (paragraph [0031]) and **transmission path** (paragraph [0027]), Salokannel is silent on **a control unit for monitoring a storage amount of said buffer unit, said control unit outputting a control signal to said transmission path if the storage amount exceeds or falls below a predetermined threshold.**

However, Harrell teaches a reception side transmitting service adjustments to a transmission side in response to the congestion levels detected by monitoring the buffer level (col. 3 lines 36-48) and a plurality of zones corresponding to the amount of information stored in the buffer (col. 6 lines 22-45).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Salokannel to have a control unit for monitoring a storage amount of said buffer unit, said control unit outputting a control signal to said transmission path if the storage amount exceeds or falls below a predetermined threshold, as suggested by Harrell. This combination would benefit the



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system by having congestion detection and flow control over packet networks (Harrell col. 1 lines 18-19).

**As per claim 6, Salokannel teaches a transmission/reception device (fig. 2 shows a mobile terminal) comprising:**

**a decoder unit for decoding a stream received from a transmission path** (fig. 2 shows a mobile terminal with an decoder unit 21; paragraph [0027], discloses decoder decodes encoded information received from a communication channel);

**a buffer unit for storing a medium signal, decoded and produced by said decoder unit** (paragraph [0031], discloses the decoded information is stored in the receiving buffer in the memory 13);

**an encoder unit for outputting a stream, obtained by receiving and encoding a medium signal, to said transmission path** (fig. 2 shows a mobile terminal with an encoder unit 20; paragraph [0027] discloses encoder is used to encode information and then the encoded information is transmitted through a communication channel).

Although Salokannel teaches **buffer unit** (paragraph [0031]) and **transmission path** (paragraph [0027]) and **encoder unit** (fig. 2 box 20) and **outputting a stream** (paragraph [0027]), Salokannel is silent on **a first control unit for monitoring a storage amount of said buffer unit, said first control unit outputting a control signal to said transmission path, if the storage amount exceeds or falls below a predetermined threshold and a second control unit for controlling said encoder**

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**unit to change a compression rate thereof and output the stream, when the control signal is received from said transmission path.**

However, Harrell teaches a reception side transmitting service adjustments, which may include changes in compression rate, to a transmission side in response to the congestion levels detected by monitoring the buffer level and (col. 3 lines 36-53) and a plurality of zones corresponding to the amount of information stored in the buffer (col. 6 lines 22-45) and the transmission side encodes using a plurality of different coding bit rates based upon a signal from the receiving side (col. 14 lines 4-13).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Salokannel to have a first control unit for monitoring a storage amount of said buffer unit, said first control unit outputting a control signal to said transmission path, if the storage amount exceeds or falls below a predetermined threshold and a second control unit for controlling said encoder unit to change a compression rate thereof and output the stream, when the control signal is received from said transmission path, as suggested by Harrell. This combination would benefit the system by having congestion detection and flow control over packet networks (Harrell col. 1 lines 18-19).

**As per claim 21, Salokannel teaches a computer program storage device, readable by machine, tangibly embodying a program of instructions executable by a machine for transmitting a medium signal, said method comprising the steps**

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**of** (paragraph [0031], discloses mobile terminal containing program codes for operation):

**outputting a stream obtained by receiving and encoding the medium signal, to a transmission path** (fig. 2 shows a mobile terminal with an encoder unit 20; paragraph [0027] discloses encoder is used to encode information and then the encoded information is transmitted through a communication channel).

Although Salokannel teaches **encoding** (paragraph [0027]) and **transmission path** (paragraph [0027]) and **outputting a stream** (paragraph [0027]), Salokannel is silent on **performing control to output the stream by changing a compression rate of the encoding processing when a predetermined control signal is received from said transmission path**.

However, Harrell teaches a transmission side receives service adjustments, which may include changes in compression rate, from the receiving side (col. 3 lines 36-53) and the transmission side encodes using a plurality of different coding bit rates based upon a signal from the receiving side (col. 14 lines 4-13).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Salokannel to have performing control to output the stream by changing a compression rate of the encoding processing when a predetermined control signal is received from said transmission path, as suggested by Harrell. This combination would benefit the system by having congestion detection and flow control over packet networks (Harrell col. 1 lines 18-19).

**As per claim 23, Salokannel teaches a computer program storage device, readable by machine, tangibly embodying a program of instructions executable by a machine for transmitting and receiving a stream transmitted from a transmission device to a transmission path (paragraph [0031], discloses mobile terminal containing program codes for operation), said method comprising the steps of:**

**decoding a stream received from said transmission path** (fig. 2 shows a mobile terminal with an decoder unit 21; paragraph [0027], discloses decoder decodes encoded information received from a communication channel).

Although Salokannel teaches **a buffer unit, in which a decoded medium signal is stored** (paragraph [0031], discloses the decoded information is stored in the receiving buffer in the memory 13), Salokannel is silent on **monitoring a storage amount of a buffer unit, in which a decoded medium signal is stored, and outputting a control signal to said transmission path, if the storage amount exceeds or falls below a predetermined threshold.**

However, Harrell teaches a reception side transmitting service adjustments to a transmission side in response to the congestion levels detected by monitoring the buffer level (col. 3 lines 36-48) and a plurality of zones corresponding to the amount of information stored in the buffer (col. 6 lines 22-45).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Salokannel to have monitoring a storage amount of a buffer unit, in which a decoded medium signal is stored, and outputting a

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control signal to said transmission path, if the storage amount exceeds or falls below a predetermined threshold, as suggested by Harrell. This combination would benefit the system by having congestion detection and flow control over packet networks (Harrell col. 1 lines 18-19).

**As per claim 25**, Salokannel teaches **a transmission device** (fig. 2 shows a mobile terminal) **that receives information data, including audios and/or images, as an input** (paragraph [0026], discloses a microphone for the transmission of speech), **performs encoding processing of the input data, creates distribution data and distributes the distribution data via a wired and/or wireless transmission path** (fig. 2 shows a mobile terminal with an encoder unit 20; paragraph [0027] discloses encoder is used to encode information and then the encoded information is transmitted through a communication channel), **said transmission device comprising:**

Although Salokannel teaches **encoding processing** (paragraph [0027]), Salokannel is silent on **means for controlling an output in such a way that, when a predetermined control signal is received from said transmission path, a compression rate of the encoding processing is changed or the distribution data is output at a time interval different from a time interval at which the input data has been encoded by the encoding processing.**

However, Harrell teaches a transmission side receives service adjustments, which may include changes in compression rate, from the receiving side (col. 3 lines 36-

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53) and the transmission side encodes using a plurality of different coding bit rates based upon a signal from the receiving side (col. 14 lines 4-13).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Salokannel to have means for controlling an output in such a way that, when a predetermined control signal is received from said transmission path, a compression rate of the encoding processing is changed, as suggested by Harrell. This combination would benefit the system by having congestion detection and flow control over packet networks (Harrell col. 1 lines 18-19).

**As per claim 26, the combination teaches a reception device comprising means for receiving and decoding the distribution data distributed from the transmission device according to claim 25 to said transmission path (Salokannel fig. 3 shows an access point containing a decoder; paragraph [0025], discloses communication between access points and mobile terminals; paragraph [0027] discloses encoder is used to encode information and then the encoded information is transmitted through a communication channel), said reception device further comprising means for monitoring a status of a storage amount (Harrell col. 3 lines 36-48, discloses a reception side transmitting service adjustments to a transmission side in response to the congestion levels detected by monitoring the buffer level) of a storage device in which the received data is stored (Salokannel, paragraph [0033], discloses memory 14, within access point controller, is used for temporary storage of received packets; paragraph [0025], discloses functions of the access point controller**

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can be implemented on the access point) **or a status of reception from said transmission path and, based on the monitor result, transmitting the control signal to said transmission device via said transmission path** (Harrell col. 3 lines 36-48, discloses a reception side transmitting service adjustments to a transmission side in response to the congestion levels detected by monitoring the buffer level).

Examiner provides the same motivation for the combination of Salokannel and Harrell as stated in claim 25.

15. Claims 2 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. PGPub 2001/0006552 to Salokannel and in further view of U.S. Patent 6,952,397 to Mor et al (hereinafter "Mor").

**As per claim 2, Salokannel teaches a transmission device comprising:**  
**an encoder unit for outputting a stream, obtained by receiving and encoding a medium signal** (fig. 2 shows a mobile terminal with an encoder unit 20; paragraph [0027] discloses encoder is used to encode information and then the encoded information is outputted).

Although Salokannel teaches **encoder unit** (fig. 2 box 20) and **transmission path** (paragraph [0027], discloses transmission through a channel) and **outputting a stream** (paragraph [0027]), Salokannel is silent on **an output control unit for receiving the stream output from said encoder unit, said output control unit performing control, when a control signal is received from a transmission path, to**

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**output the stream to the transmission path at a time interval different from a time interval at which the medium signal has been encoded by said encoder unit.**

However, Mor teaches upon receiving a notification, delaying the transmission of traffic for a predetermined waiting period (col. 4 lines 19-27).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Salokannel to have an output control unit for receiving the stream output from said encoder unit, said output control unit performing control, when a control signal is received from a transmission path, to output the stream to the transmission path at a time interval different from a time interval at which the medium signal has been encoded by said encoder unit, as suggested by Mor. This combination would benefit the system by providing an improved communication method and devices for bidirectional networks (Mor col. 3 lines 5-8).

**As per claim 22, Salokannel teaches a computer program storage device, readable by machine, tangibly embodying a program of instructions executable by a machine for transmitting a medium signal, said method comprising the steps of** (paragraph [0031], discloses mobile terminal containing program codes for operation):

**outputting a stream obtained by receiving and encoding a medium signal** (fig. 2 shows a mobile terminal with an encoder unit 20; paragraph [0027] discloses encoder is used to encode information and then the encoded information is outputted).



Although Salokannel teaches **encoding** (paragraph [0027]) and **outputting a stream** (paragraph [0027]), Salokannel is silent on **when transmitting the stream after encoding, performing output control of stream, on receipt of a predetermined control signal from a transmission path, so that the stream is output to said transmission path at a time interval different from a time interval at which the medium signal has been encoded by the encoding processing.**

However, Mor teaches upon receiving a notification, delaying the transmission of traffic for a predetermined waiting period (col. 4 lines 19-27).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Salokannel to have when transmitting the stream after encoding, performing output control of stream, on receipt of a predetermined control signal from a transmission path, so that the stream is output to said transmission path at a time interval different from a time interval at which the medium signal has been encoded by the encoding processing, as suggested by Mor. This combination would benefit the system by providing an improved communication method and devices for bidirectional networks (Mor col. 3 lines 5-8).

16. Claims 4, 5 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. PGPub 2001/0006552 to Salokannel and in further view of U.S. Patent 6,473,411 to Kumaki et al (hereinafter "Kumaki").

**As per claim 4, Salokannel teaches a reception device comprising:**

**a decoder unit for decoding a stream received from a transmission path** (fig. 2 shows a mobile terminal with an decoder unit 21; paragraph [0027], discloses decoder decodes encoded information received from a communication channel);

Although Salokannel teaches **transmission path** (paragraph [0027]), Salokannel is silent on **a monitor unit for monitoring a wireless reception status of said transmission path and a control unit for outputting a control signal to said transmission path based on a notification from said monitor unit, if the wireless reception status indicates a handover status.**

However, Kumaki teaches a mobile terminal detects the degradation of a received signal strength and transmits a handoff request message (col. 45 lines 45-50).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Salokannel to have a monitor unit for monitoring a wireless reception status of said transmission path and a control unit for outputting a control signal to said transmission path based on a notification from said monitor unit, if the wireless reception status indicates a handover status, as suggested by Kumaki. This combination would benefit the system by making a re-connection when a communication is disconnected suddenly at a visited site (Kumaki col. 4 lines 4-5).

**As per claim 5, the combination teaches the reception device according to claim 4, wherein, when a wireless status of said transmission path indicates a handover from a current wireless area to an adjacent area, said monitor unit notifies the handover status to said control unit** (Kumaki, col. 45 lines 45-50,

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discloses a mobile terminal detects the degradation of a received signal strength and transmits a handoff request message; col. 45 lines 32-36, discloses handoff is when mobile terminal moves from the radio base station to another radio base station).

**As per claim 24, Salokannel teaches a computer program storage device, readable by machine, tangibly embodying a program of instructions executable by a machine for receiving a stream transmitted from a transmission device to a transmission path** (paragraph [0031], discloses mobile terminal containing program codes for operation) **said method comprising the steps of:**

**decoding a stream received from said transmission path** (fig. 2 shows a mobile terminal with an decoder unit 21; paragraph [0027], discloses decoder decodes encoded information received from a communication channel).

Although Salokannel teaches **transmission path** (paragraph [0027]), Salokannel is silent on **monitoring a wireless reception status of said transmission path and output a control signal to said transmission path, if the wireless reception status indicates a handover status.**

However, Kumaki teaches a mobile terminal detects the degradation of a received signal strength and transmits a handoff request message (col. 45 lines 45-50).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Salokannel to have monitoring a wireless reception status of said transmission path and output a control signal to said transmission path, if the wireless reception status indicates a handover status, as

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suggested by Kumaki. This combination would benefit the system by making a re-connection when a communication is disconnected suddenly at a visited site (Kumaki col. 4 lines 4-5).

17. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. PGPub 2001/0006552 to Salokannel and in further view of U.S. Patent 7,274,661 to Harrell et al (hereinafter "Harrell") and in further view of U.S. Patent 6,952,397 to Mor et al (hereinafter "Mor").

**As per claim 7, Salokannel teaches a transmission/reception device (fig. 2 shows a mobile terminal) comprising:**

**a decoder unit for decoding a stream received from a transmission path** (fig. 2 shows a mobile terminal with an decoder unit 21; paragraph [0027], discloses decoder decodes encoded information received from a communication channel);

**a buffer unit for storing a medium signal decoded and produced by said decoder unit** (paragraph [0031], discloses the decoded information is stored in the receiving buffer in the memory 13);

**an encoder unit for outputting a stream obtained by receiving and encoding a medium signal** (fig. 2 shows a mobile terminal with an encoder unit 20; paragraph [0027] discloses encoder is used to encode information and then the encoded information is outputted).

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Although Salokannel teaches **buffer unit** (paragraph [0031]) and **transmission path** (paragraph [0027]), Salokannel is silent on **a first control unit for monitoring a storage amount of said buffer unit, said first control unit outputting a control signal to path transmission line, if the storage amount exceeds or falls below a predetermined threshold.**

However, Harrell teaches a reception side transmitting service adjustments to a transmission side in response to the congestion levels detected by monitoring the buffer level (col. 3 lines 36-48) and a plurality of zones corresponding to the amount of information stored in the buffer (col. 6 lines 22-45).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Salokannel have a first control unit for monitoring a storage amount of said buffer unit, said first control unit outputting a control signal to path transmission line, if the storage amount exceeds or falls below a predetermined threshold, as suggested by Harrell. This combination would benefit the system by having congestion detection and flow control over packet networks (Harrell col. 1 lines 18-19).

Although the combination teaches **encoder unit** (Salokannel, fig. 2 box 20) and **outputting a stream** (Salokannel, paragraph [0027]) and **transmission path** (Salokannel, paragraph [0027]), the combination is silent on **a second control unit for receiving the stream output from said encoder unit, said second control unit performing control to output the stream to said transmission path at a time interval different from a time interval at which the medium signal has been**

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**encoded by said encoder unit, when the control signal is received from said transmission path.**

However, Mor teaches upon receiving a notification, delaying the transmission of traffic for a predetermined waiting period (col. 4 lines 19-27).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the combination to have a second control unit for receiving the stream output from said encoder unit, said second control unit performing control to output the stream to said transmission path at a time interval different from a time interval at which the medium signal has been encoded by said encoder unit, when the control signal is received from said transmission path, as suggested by Mor. This combination would benefit the system by providing an improved communication method and devices for bidirectional networks (Mor col. 3 lines 5-8).

18. Claims 8 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. PGPub 2001/0006552 to Salokannel and in further view of U.S. Patent 6,473,411 to Kumaki et al (hereinafter "Kumaki") and in further view of U.S. Patent 7,274,661 to Harrell et al (hereinafter "Harrell").

**As per claim 8, Salokannel teaches a transmission/reception (fig. 2 shows a mobile terminal) device comprising:**

**a decoder unit for decoding a stream received from a transmission path** (fig. 2 shows a mobile terminal with an decoder unit 21; paragraph [0027], discloses decoder decodes encoded information received from a communication channel);

**an encoder unit for outputting a stream, obtained by receiving and encoding a medium signal, to said transmission path** (fig. 2 shows a mobile terminal with an encoder unit 20; paragraph [0027] discloses encoder is used to encode information and then the encoded information is transmitted through a communication channel).

Although Salokannel teaches **transmission path** (paragraph [0027]), Salokannel is silent on **a monitor unit for monitoring a wireless reception status of said transmission path and a first control unit for outputting a control signal to said transmission path based on a notification from said monitor unit if the wireless reception status indicates a handover status.**

However, Kumaki teaches a mobile terminal detects the degradation of a received signal strength and transmits a handoff request message (col. 45 lines 45-50).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Salokannel to have a monitor unit for monitoring a wireless reception status of said transmission path, a first control unit for outputting a control signal to said transmission path based on a notification from said monitor unit if the wireless reception status indicates a handover status, as suggested by Kumaki. This combination would benefit the system by making a re-connection when a communication is disconnected suddenly at a visited site (Kumaki col. 4 lines 4-5).

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Although the combination teaches **encoder unit** (Salokannel, fig. 2 box 20) and **outputting a stream** (Salokannel, paragraph [0027]) and **transmission path** (Salokannel, paragraph [0027]), the combination is silent on **a second control unit for controlling said encoder unit to change a compression rate thereof and output the stream when the control signal is received from said transmission path.**

However, Harrell teaches a transmission side receives service adjustments, which may include changes in compression rate, from the receiving side (col. 3 lines 36-53) and the transmission side encodes using a plurality of different coding bit rates based upon a signal from the receiving side (col. 14 lines 4-13).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the combination to have a second control unit for controlling said encoder unit to change a compression rate thereof and output the stream when the control signal is received from said transmission path, as suggested by Harrell. This combination would benefit the system by having congestion detection and flow control over packet networks (Harrell col. 1 lines 18-19).

**As per claim 10**, the combination teaches **the transmission/reception device according to claim 8, wherein, when a wireless status of said transmission path indicates a handover from a current wireless area to an adjacent area, said monitor unit notifies the handover status to said first control unit** (Kumaki, col. 45 lines 45-50, discloses a mobile terminal detects the degradation of a received signal strength and transmits a handoff request message; col. 45 lines 32-36, discloses



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handoff is when mobile terminal moves from the radio base station to another radio base station).

Examiner provides the same motivation for the combination as stated in claim 8.

19. Claims 9 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. PGPub 2001/0006552 to Salokannel and in further view of U.S. Patent 6,473,411 to Kumaki et al (hereinafter "Kumaki") and in further view of U.S. Patent 6,952,397 to Mor et al (hereinafter "Mor").

**As per claim 9**, Salokannel teaches **a transmission/reception device** (fig. 2 shows a mobile terminal) **comprising:**

**a decoder unit for decoding a stream received from a transmission path** (fig. 2 shows a mobile terminal with an decoder unit 21; paragraph [0027], discloses decoder decodes encoded information received from a communication channel);

**an encoder unit for outputting a stream, obtained by receiving and encoding a medium signal** (fig. 2 shows a mobile terminal with an encoder unit 20; paragraph [0027] discloses encoder is used to encode information and then the encoded information is outputted).

Although Salokannel teaches **transmission path** (paragraph [0027]) and **encoder unit** (fig. 2 box 20) and **outputting a stream** (paragraph [0027]), Salokannel is silent on **a monitor unit for monitoring a wireless reception status of said transmission path** and **a first control unit for outputting a control signal to said**

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**transmission path based on a notification from said monitor unit if the wireless reception status indicates a handover status.**

However, Kumaki teaches a mobile terminal detects the degradation of a received signal strength and transmits a handoff request message (col. 45 lines 45-50).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Salokannel to have a monitor unit for monitoring a wireless reception status of said transmission path and a first control unit for outputting a control signal to said transmission path based on a notification from said monitor unit if the wireless reception status indicates a handover status, as suggested by Kumaki. This combination would benefit the system by making a re-connection when a communication is disconnected suddenly at a visited site (Kumaki col. 4 lines 4-5).

Although the combination teaches **transmission path (transmission path (paragraph [0027]), paragraph [0027]), encoder unit (Salokannel, fig. 2 box 20) and outputting a stream (Salokannel, paragraph [0027])**, the combination is silent on a **second control unit for receiving the stream output from said encoder unit, said second control unit performing control to output the stream to said transmission path at a time interval different from a time interval at which the medium signal has been encoded by said encoder unit, when the control signal is received from said transmission path.**

However, Mor teaches upon receiving a notification, delaying the transmission of traffic for a predetermined waiting period (col. 4 lines 19-27).

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Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the combination to have a second control unit for receiving the stream output from said encoder unit, said second control unit performing control to output the stream to said transmission path at a time interval different from a time interval at which the medium signal has been encoded by said encoder unit, when the control signal is received from said transmission path, as suggested by Mor. This combination would benefit the system by providing an improved communication method and devices for bidirectional networks (Mor col. 3 lines 5-8).

**As per claim 30**, the combination teaches **the transmission/reception device according to claim 9, wherein, when a wireless status of said transmission path indicates a handover from a current wireless area to an adjacent area, said monitor unit notifies the handover status to said first control unit** (Kumaki, col. 45 lines 45-50, discloses a mobile terminal detects the degradation of a received signal strength and transmits a handoff request message; col. 45 lines 32-36, discloses handoff is when mobile terminal moves from the radio base station to another radio base station).

Examiner provides the same motivation for the combination as stated in claim 9.

### ***Conclusion***

20. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. (See PTO-892 form).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PETER CHAU whose telephone number is (571)270-7152. The examiner can normally be reached on Monday-Friday 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edan Orgad can be reached on 571-272-7884. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/P. C./  
Examiner, Art Unit 2419

/Salman Ahmed/  
Examiner, Art Unit 2419